

CLAIMS

1. A method for prioritizing status polling based on connection speed, the method comprising the steps of:

determining a number of fast connection PHY addresses;

5 determining a number of slow connection PHY addresses;

calculating a poll ratio based on the number of fast connection PHY addresses and the number of slow connection PHY addresses; and

arbitrating status polling based at least in part on the poll ratio for at least one polling period.

10 2. The method of claim 1, wherein one or both of the fast connection PHY addresses and the slow connection PHY addresses are software configurable.

3. The method of claim 2, wherein the fast connection PHY address is configured to be approximately 155 Mb/s link.

15 4. The method of claim 2, wherein the slow connection PHY address is configured to be a T1/E1 1 Mb/s to 2/5 Mb/s link.

5. The method of claim 1, wherein the poll ratio comprises a plurality of poll ratios.

6. The method of claim 1, wherein the polling is restricted to the PHY addresses that are connected.

20 7. The method of claim 1, wherein status polling is arbitrated at a different poll ratio for each polling period.

8. The method of claim 5, wherein the poll ratios include 0/100, 25/75, 50/50, 75/25, 100/0 wherein each poll ratio represents fast connections to slow connections.

25 9. The method of claim 1, wherein the polling period comprises a two clock cycle polling.

10. The method of claim 1, wherein the poll ratio is further based on one or more of a number of connections, type of connection and bandwidth distribution.

30 11. A system for prioritizing status polling based on connection speed, the system comprising:

PATENT
Attorney Docket No.: 56162.000417

a poll ratio module for calculating a poll ratio based on the number of fast connection PHY addresses and the number of slow connection PHY addresses; and

an arbitrate status polling module for arbitrating status polling based at least in part on the poll ratio for at least one polling period.

5 12. The system of claim 11, wherein one or both of the fast connection PHY addresses and the slow connection PHY addresses are software configurable.

13. The system of claim 12, wherein the fast connection PHY address is configured to be approximately 155 Mb/s link.

10 14. The system of claim 12, wherein the slow connection PHY address is configured to be a T1/E1 1 Mb/s to 2/5 Mb/s link.

15 15. The system of claim 11, wherein the poll ratio comprises a plurality of poll ratios.

16. The system of claim 11, wherein the polling is restricted to the PHY addresses that are connected.

15 17. The system of claim 11, wherein status polling is arbitrated at a different poll ratio for each polling period.

18. The system of claim 15, wherein the poll ratios include 0/100, 25/75, 50/50, 75/25, 100/0 wherein each poll ratio represents fast connections to slow connections.

20 19. The system of claim 11, wherein the polling period comprises a two clock cycle polling.

20 20. The system of claim 11, wherein the poll ratio is further based on one or more of a number of connections, type of connection and bandwidth distribution.

25 21. A computer readable medium, the computer readable medium comprising a set of instructions for prioritizing status polling based on connection speed and being adapted to manipulate a processor to:

determine a number of fast connection PHY addresses;

determine a number of slow connection PHY addresses;

30 calculate a poll ratio based on the number of fast connection PHY addresses and the number of slow connection PHY addresses; and

PATENT

Attorney Docket No.: 56162.000417

arbitrate status polling based at least in part on the poll ratio for at least one
polling period.